

Form PTO-1449
(Rev. 8-83)
(modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
11051US03

SERIAL NO.
09/811,933

Sheet 1 of 5

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Tmc	A1	5,028,530	07/1991	Lai et al.	435	69.1	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NO.	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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Tmc	B2	WO 85/01746	04/85	PCT				

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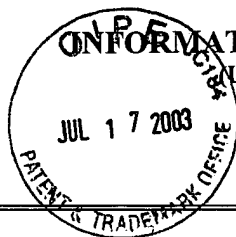
Tmc	C1	Albano, et al., "Green Fluorescent Protein as a Real Time Quantitative Reporter of Heterologous Protein Production," <i>Biotechnol. Prog.</i> 14:351-354 (1998)
	C2	Armengaud, et al., "Production of a full length Tat protein in <i>E. coli</i> and its purification," <i>FEBS Letters</i> , 282(1):157-160 (April 1991)
	C3	Bost, et al., "Transcriptional Activation of <i>ydeA</i> , Which Encodes a Member of the Major Facilitator Superfamily, Interferes with Arabinose Accumulation and Induction of the <i>Escherichia coli</i> Arabinose P _{BAD} Promoter," <i>Journal of Bacteriology</i> , 181(7):2185-2191 (Apr. 1999)
	C4	Cagnon, et al., "A new family of sugar-inducible expression vectors for <i>Escherichia coli</i> ," <i>Protein Engineering</i> 4(7):843-847 (Oct 1991)

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DM	C5	Cariello, <i>et al.</i> , "A novel bacterial reversion and forward mutation assay based on green fluorescent protein," <i>Mutation Research</i> , 414:95-105 (1998)
	C6	Carrier, <i>et al.</i> , "mRNA Stability and Plasmid Copy Number Effects on Gene Expression from an Inducible Promoter System," <i>Biotechnology and Bioengineering</i> , 59(6):666-672 (September 20, 1998)
	C7	Casadaban, "Fusion of the <i>Escherichia coli</i> <i>lac</i> Genes to the <i>ara</i> Promoter: A General Technique Using Bacteriophage Mu-1 Insertions," <i>Proc. Nat. Acad. Sci. USA</i> , 72(3):809-813 (March 1975)
	C8	Casadaban, <i>et al.</i> , "Analysis of Gene Control Signals by DNA Fusion and Cloning in <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> 138(2):179-207 (1980)
	C9	Clark, <i>et al.</i> , "Regulation and expression of human fabs under the control of the <i>Escherichia coli</i> arabinose promoter, P _{BAD} ," <i>Immunotechnology</i> 3:217-226 (Oct 1997)
	C10	DeLisa, <i>et al.</i> , "Monitoring GFP-Operon Fusion Protein Expression During High Cell Density Cultivation of <i>Escherichia coli</i> Using an On-line Optical Sensor," <i>Biotechnology and Bioengineering</i> , 65(1):54-64 (October 5, 1999)
	C11	Doig, <i>et al.</i> , "Large scale production of cyclohexanone monooxygenase from <i>Escherichia coli</i> TOP10 pQR239," <i>Enzyme and Microbial Technology</i> , 28:265-274 (2001)
	C12	Dunn, <i>et al.</i> , "Deletion Analysis of the <i>Escherichia coli</i> <i>ara</i> P _c and P _{BAD} Promoters," <i>J. Mol. Biol.</i> , 180:201-204 (1984)
	C13	Dunn, <i>et al.</i> , "An operator at - 280 base pairs that is required for repression of <i>araBAD</i> operon promoter: Addition of DNA helical turns between the operator and promoter cyclically hinders repression," <i>Proc. Natl. Acad. Sci. USA</i> , 81:5017-5020 (August 1984)
	C14	Greenfield, <i>et al.</i> , "DNA sequence of the <i>araBAD</i> promoter in <i>Escherichia coli</i> B/r," <i>Proc. Natl. Acad. Sci. USA</i> , 75(10):4724-4728 (October 1978)
	C15	Guzman, <i>et al.</i> , "Tight Regulation, Modulation, and High-Level Expression by Vectors Containing the Arabinose P _{BAD} Promoter," <i>Journal of Bacteriology</i> , 177(14):4121-4130 (July 1995)
	C16	Hahn, <i>et al.</i> , "Upstream Repression and CRP Stimulation of the <i>Escherichia coli</i> L-Arabinose Operon," <i>J. Mol Biol</i> , 180(1):61-72 (Nov 25, 1984)

EXAMINER: <i>Tanya M. Foley</i>	DATE CONSIDERED: 11/2/03
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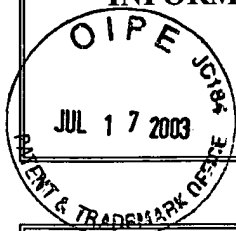
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me	C17	Haldimann <i>et al.</i> , "Use of New Methods for Construction of Tightly Regulated Arabinose and Rhamnose Promoter Fusions in Studies of the <i>Escherichia coli</i> Phosphate Regulon," <i>Journal of Bacteriology</i> , 180(5):1277-1286 (Mar. 1998)
	C18	Hendrickson, <i>et al.</i> , "Characterization of the <i>Escherichia coli</i> araFGH and araJ Promoters," <i>J. Mol. Biol.</i> , 215(4):497-510 (Oct 20, 1990)
	C19	Horazdovsky, <i>et al.</i> , "Genetic Reconstitution of the High-Affinity L-Arabinose Transport System," <i>Journal of Bacteriology</i> , 171(6):3053-3059 (June 1989)
	C20	Horazdovsky, <i>et al.</i> , "High-Affinity L-Arabinose Transport Operon. Gene Product Expression and mRNAs," <i>J Mol Biol</i> , 197(1):27-35 (Sep 5, 1987)
	C21	Horwitz, <i>et al.</i> , "Functional Limits of the <i>araC</i> Promoter Suggest an Additional Regulatory Site for <i>araBAD</i> Expression," <i>Journal of Bacteriology</i> , 158(1):141-147 (Apr. 1984)
	C22	Horwitz, <i>et al.</i> , "DNA sequence of the <i>araBAD-araC</i> controlling region in <i>Salmonella typhimurium</i> LT2," <i>Gene</i> , 14(4):309-319 (Sep 1981)
	C23	Huo, <i>et al.</i> , "Alternative DNA loops regulate the arabinose operon in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 85:5444-5448 (August 1988)
	C24	Jacobs, <i>et al.</i> , "Human metallothionein-II is synthesized as a stable membrane-localized fusion protein in <i>Escherichia coli</i> ," <i>Gene</i> , 83:95-103 (1989)
	C25	Johnson, <i>et al.</i> , "In Vivo Induction Kinetics of the Arabinose Promoters in <i>Escherichia coli</i> ," <i>Journal of Bacteriology</i> , 177(12):3438-3442 (June 1995)
	C26	Kaplan, <i>et al.</i> , "Hybrid Plasmids Containing the <i>araBAD</i> Genes of <i>Escherichia coli</i> B/r," <i>Gene</i> , 3:177-189 (1978)
	C27	Kolodrubetz, <i>et al.</i> , "L-arabinose Transport Systems in <i>Escherichia coli</i> K-12," <i>J Bacteriol</i> , 148(2):472-479 (Nov 1981)
	C28	Kuhn, <i>et al.</i> , "Isolation of Mutants in M13 Coat Protein That Affect Its Synthesis, Processing, and Assembly into Phage," <i>The Journal of Biological Chemistry</i> , 260(29):15907-15913 (December 15, 1985)
	C29	Lechler, <i>et al.</i> , "Overproduction of phenylalanyl-tRNA synthetase from <i>thermus thermophilus</i> HB8 in <i>Escherichia coli</i> ," <i>Protein Expr Purif</i> (8):347-357 (Nov 1996) Article 0110
↓	C30	Lee, <i>et al.</i> , "Arabinose-induced binding of AraC protein to <i>araI</i> ₂ activates the <i>araBAD</i> operon promoter," <i>Proc. Natl. Acad. Sci. USA</i> 84:8814-8818 (1987)

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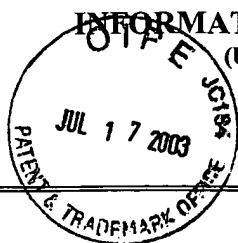
Ferry a M. Tolby

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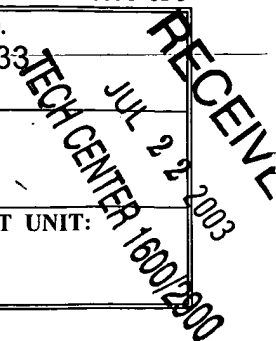
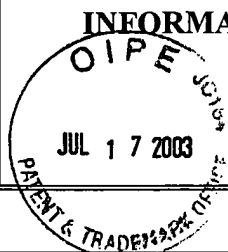


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Im	C31	Lee, et al., "Use of Cloned <i>mtl</i> Genes of <i>Escherichia coli</i> to Introduce <i>mtl</i> Deletion Mutations into the Chromosome," <i>Journal of Bacteriology</i> , 153(2):685-692 (Feb. 1983)
	C32	Lee, et al., "Repression of the <i>araBAD</i> Promoter from <i>araO</i> ₁ ," <i>J Mol Biol</i> 224(2):335-341 (Mar 20, 1992)
	C33	Lin, et al., "The <i>araBAD</i> operon of <i>Salmonella typhimurium</i> LT2. II. Nucleotide sequence of <i>araA</i> and primary structure of its product, L-arabinose isomerase," <i>Gene</i> , 34(1):123-128 (1985)
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	C37	Maloney, et al., "Distribution of Suboptimally Induced β -D-Galactosidase in <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> , 73:77-91 (1973)
	C38	Miyada, et al., "Five Mutations in the Promoter Region of the <i>araBAD</i> Operon of <i>Escherichia coli</i> B/r," <i>Journal of Bacteriology</i> , 156(2):765-772 (Nov. 1983)
	C39	<i>pBAD</i> . "It does for protein expression what the rheostat did for electricity," <i>Science</i> , 1 page, (Augst 14, 1988)
	C40	Perez, et al., "An arabinose-inducible expression vector, pAR3, compatible with ColE1-derived plasmids," <i>Gene</i> , 158(1):141-142 (May 26, 1995)
	C41	"PGFPuv Vector Information" <i>Clontech</i> (updated April 21, 1998) (3 pages)
	C42	"Products for Gene Expression and Analysis," <i>Expressions</i> 4(4):1-16 (June 1997)
	C43	"Pro™ Bacterial Expression System, Multiple levels of control for a wide range of tightly regulated expression," <i>CLONTECH</i> (No dated) 7 pages
✓	C44	"Pro™ Bacterial Expression System," <i>CLONTECHniques</i> (October 1998) 2 pages

EXAMINER <i>Kerrya McElroy</i>	DATE CONSIDERED: 4/2/03
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Me	C45	Reeder, <i>et al.</i> , "Mapping, Sequence, and Apparent Lack of Function of <i>araJ</i> , a Gene of the <i>Escherichia coli</i> Arabinose Regulon," <i>Journal of Bacteriology</i> , 173(24):7765-7771 (Dec. 1991)
	C46	Romeyer, <i>et al.</i> , "Expression of a <i>Neurospora crassa</i> Metallothionein and Its Variants in <i>Escherichia coli</i> ," <i>Applied and Environmental Microbiology</i> , 56(9):2748-2754 (Sept. 1990)
	C47	Saviola, <i>et al.</i> , "Arm-Domain Interactions in AraC," <i>J. Mol Biol</i> , 278(3):539-548 (May 8, 1998)
	C48	Schleif, "L-Arabinose Operon Messenger of <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> 61(1):275-279 (1971)
	C49	Schleif, <i>et al.</i> , "Dual Control of Arabinose Genes on Transducing Phage λ ara," <i>J. Mol. Biol.</i> 59:127-150 (1971)
	C50	Schleif, <i>et al.</i> , "Transcription in the Lambda-ara Phage," Transcription of Genetic Material, Cold Spring Harbor Symposia on Quantitative Biology Vol. XXXV, pages 369-373 (1970)
	C51	Scripture, <i>et al.</i> , "High-affinity L-arabinose transport operon. Nucleotide Sequence and analysis of gene products," <i>J Mol Biol</i> , 197(1):37-46 (1987)
	C52	Siegele, <i>et al.</i> , "Gene expression from plasmids containing the <i>araBAD</i> promoter at subsaturating inducer concentrations represents mixed populations," <i>Proc. Natl. Acad. Sci. USA</i> , 94:8168-8172 (July 1997)
	C53	Slos, <i>et al.</i> , "Recombinant cholera toxin B subunit in <i>Escherichia coli</i> : high-level secretion, purification, and characterization," <i>Protein Expr Purif</i> , 5(5):518-526 (Oct 1994)
	C54	Stoner, <i>et al.</i> , "The <i>araE</i> low affinity L-arabinose transport promoter. Cloning, sequence, transcription start site and DNA binding sites of regulatory proteins," <i>J. Mol Biol</i> , 171(4):369-381 (Dec 25, 1983)
	C55	Taylor, <i>et al.</i> , "High-level expression and purification of mature HIV-1 protease in <i>Escherichia coli</i> under control of the <i>araBAD</i> promoter," <i>Appl Microbial Biotechnol</i> 37(2):205-210 (May 1992)
	C56	Wilcox, <i>et al.</i> , "Interaction of the Regulatory Gene Produce with the Operator Site in the L-Arabinose Operon of <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> , 85:589-602 (1974)

EXAMINER <i>Terry A. McTigue</i>	DATE CONSIDERED: <i>11/2/03</i>
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